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Pushrod cable with adjustable stiffness

Hradil Spezialkabel is the first company to present an almost completely break-resistant BFP pushrod cable that can be adjusted for various degrees of stiffness for sewer inspection tasks.

Pushrod cameras play a crucial role in CCTV sewer inspection, as they permit the high-precision 3D surveying of manholes, sewer pipes, elbows and branches and record damage in underground sewers. The CCTV cameras are pushed through underground passages by means of a stiff cable - a process during which it must withstand extremely high mechanical loads: In addition to the continuous pressure due to the permanent forward push action, the cable is also subjected to high internal stresses when reeled onto the cable drum. In the case of most pushrod cables breakage is therefore only a matter of time. According to a rule of thumb cable breakages become more frequent after a period of use of 9 months. In this situation many users cut and terminate the cable at the point of breakage. It is obvious, however, that the next cable break will occur after an even shorter period, the more so, since the whole cable has been subject to wear and tear. Users should therefore think about whether this piece-meal repair really makes good business sense considering the downtime while the equipment cannot be used. The costs for a replacement cable, on the other hand, have to be weighed against this.

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Fig. 1: Break-resistant BFP pushrod cable by HRADL SPEZIALKABEL with adjustable stiffness

Virtually unbreakable – thanks to basalt fibre

HRADIL Spezialkabel present compatible push cables with a BFP pushrod that are virtually unbreakable - at an almost unbeatable price for this type of cable. HRADIL pushrod cables are suitable for most sewer inspection CCTV systems used around the world.

The BFK pushrod used by HRADIL to implement the push function is made from a newly developed, high-tech basalt fibre reinforced material. Thanks to this, the HRADIL push cable features a significantly smaller diameter, is more flexible and lighter in weight and offers superior push properties, narrower bending radii and better sliding characteristics compared to conventional push cables. Another advantage is that, owing to the lower weight and smaller cable diameter, the cable drum will accommodate longer cables.

Adjustable degree of stiffness

We saved the best for last, however: In contrast to pushrod cables carrying a single BFP pushrod at the cable centre, HRADIL's cable engineers have come up with a design where the BFP pushrods reside in the outer layer and have been twisted together with the entire cable assembly. The BFP pushrods are available in different diameters, so that, depending on which BFP pushrod diameter is chosen, the stiffness of the push cable can be optimally adapted to the circumstances at the site. The highest stiffness is obtained with larger BFP pushrods. Where heavy CCTV cameras are used and long distances need to be covered this can be an important advantage. In the case of narrow bending radii and lighter camera equipment, smaller BFC pushrods and their greater flexibility may prove to be of greater value.

HRADIL BFC pushrod cables can be delivered at short notice.



Fig. 2: Break-resistant special CCTV inspection pushrod cable by HRADIL SPEZIALKABEL

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